

When you borrow money from a bank, the amount you borrow is called the **Principal, P**. The amount you pay for the use of the money you borrowed is called the **Interest, I**. The amount of interest you pay depends on the amount you borrow, the interest rate in percent, and the **Time, T**, or length of time you borrow the money in years.

In this worksheet, you will learn how to calculate simple interest using a building blocks method that proceeds from simple calculations to complex.

Building Block 1 (Basic formula)

Amy Ni wants to borrow, \$450.00 at 6% for 2 years. Find the interest in dollars that Amy will have to repay and the total amount, principal plus interest Amy will repay.

Amy will use the formula: $I = (P)(R)(T)$ to find the interest in dollars she will repay. Amy knows that $6\% = 6/100$ or $.06$. Thus, $I = P R T$ equals $(450)(.06)(2)$ or \$54.00. Amy will pay back \$504.00 when the loan is due. (Note that 2 years was not expressed as 24 months!) To multiply by 24 would have been saying that Amy had the loan for 24 years.

Practice Set #1

Calculate the amount of interest and the amount to repay in the table below.

No	Principal	Rate	Time	Interest	Amount to Repay
Ex.	\$450.00	6%	2	\$54.00	\$504.00
1	\$4500.00	9%	6		
2	\$800.00	5%	3		
3	\$3,000.00	10%	5		
4	\$9,500.00	12%	2		
5	\$1,000.00	10%	1		
6	\$45,280.00	14%	2		

Building Block 2 (When Time is less than a year)

When the time of the loan is less than a year, Time has to be expressed as parts of a year. Taylor Price needs to borrow \$300 for 6 months. If the interest rate is 6% how much will Taylor pay in interest? How much will Taylor repay?

Taylor will use the formula: $I = (P)(R)(T)$ to find the interest she will pay. But first, she will convert six (6) months as a fraction of a year. There are 12